

**STATE  
OF  
COLORADO  
WATER STANDARDS**

**Surface Water Regulations**

**Groundwater Regulations**

**Impoundment Regulations (Proposed)**

**ADMIN RECORD**

# STATE OF COLORADO

## WATER QUALITY CONTROL COMMISSION

4210 East 11th Avenue  
Denver, Colorado 80220  
Phone (303) 331-4525



### NOTICE OF FINAL ADOPTION

PURSUANT to the provisions of Sections 24-4-103(5) and 24-4-103(11)(a), C.R.S.

NOTICE IS HEREBY GIVEN that the Colorado Water Quality Control Commission, after public hearing on March 7 through 11, 1988, December 6, 1988, June 5, 1989, and July 11, 1989 and complying with the provisions of 24-4-103(3) and 25-8-401(1), C.R.S., amended on August 7, 1989, pursuant to 25-8-202(1)(a), (b) and (2); 25-8-203; and 25-8-204, C.R.S., and Section 2.1.3 of the "Procedural Rules" the regulation entitled:

"The Basic Standards and Methodologies for Surface Water 3.1.0 (5 CCR 1002-8)".

Providing for interim organic pollutant standards applicable to all surface waters of the state for which corresponding use classifications have been adopted, or unless alternative site-specific standards have been adopted.

Also, pursuant to 24-4-103(8)(b), C.R.S., these amendments were submitted to the Attorney General for review and were found to be within the authority of the Water Quality Control Commission to promulgate, and further that there are no apparent constitutional deficiencies in their form or substance. Furthermore, these amendments incorporate by reference a general Statement of Basis, Specific Statutory Authority and Purpose in compliance with 24-4-103(4), C.R.S.

These amendments will be submitted to the Legislative Drafting Office within twenty (20) days after the date of the Attorney General's Opinion, pursuant to 24-4-103(8)(d), C.R.S., and to the Secretary of State in time for September, 1989 publication in the Colorado Register pursuant to 24-4-103(11)(d), C.R.S. Pursuant to 24-4-103(5), C.R.S., these amendments will become effective September 30, 1989.

A copy of the amended regulation is attached and made a part of this notice.\*

Dated this 17<sup>th</sup> day of August, 1989, at Denver, Colorado.

Water Quality Control Commission

\* A copy of this amended regulation is available at a charge of \$5.00 pursuant to 24-4-103(9), C.R.S.

Kathleen Reilly  
Kathleen Reilly, Acting Administrator

COLORADO DEPARTMENT OF HEALTH  
WATER QUALITY CONTROL COMMISSION

THE BASIC STANDARDS AND METHODOLOGIES  
FOR SURFACE WATER

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ADOPTED: May 22, 1979

EFFECTIVE: July 10, 1979

AMENDED: December 12, 1983

EFFECTIVE: January 30, 1984

AMENDED: June 2, 1987

EFFECTIVE: July 31, 1988

AMENDED: June 6, 1988

EFFECTIVE: July 31, 1988

AMENDED: August 1, 1988

EFFECTIVE: September 30, 1988

AMENDED: August 7, 1989

EFFECTIVE: September 30, 1989

- (c) which produce color, odor, or other conditions in such a degree as to create a nuisance or harm existing beneficial uses or impart any undesirable taste to significant edible aquatic species or to the water; or
  - (d) which are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life; or
  - (e) which produce a predominance of undesirable aquatic life; or
  - (f) which cause a film on the surface or produce a deposit on shorelines.
- (2) The radioactive materials in surface waters shall be maintained at the lowest practical level. In no case shall radioactive materials in surface waters be increased by any cause attributable to municipal, industrial, or agricultural practices or discharges so as to exceed the following levels, unless alternative site-specific standards have been adopted pursuant to Subsection (4) below:

<u>Parameter</u>	<u>Picocuries per Liter</u>
Cesium 134	80
Plutonium 238, 239, and 240	15
Radium 226 and 228	5
Strontium 90	8
Thorium 230 and 232	60
Tritium	20,000

- (3) The interim organic pollutant standards contained in the following tables A, B, and C are applicable to all surface waters of the state for which the corresponding use classifications have been adopted, unless alternative site-specific standards have been adopted pursuant to Subsection (4) below. Standards for organic chemicals in stream segments classified for domestic water supply are listed in Table A and Table B. Standards for organic chemicals in stream segments classified for aquatic life (warm and cold water, classes 1 and 2) are listed in Table C.

Note that all standards in Tables A, B, and C are being adopted as "interim standards." These interim standards will remain in effect until alternative permanent standards are adopted by the Commission in revisions to this regulation or site-specific standards determinations. Although fully effective with respect

# STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

TEMPORARY MODIFICATIONS and QUALIFIES									
CLASSIFICATIONS									
								NUMERIC STANDARDS	
HIGH REC.	AQUATIC LIFE	COLD CL. 1	COLD CL. 2	WATER SUPPLY	AGRICULTURE	INORGANIC	METALS	ug/l	
HIGH QUAL			X	X					
N: Big Dry Creek	Segment Description								
Mainstem of Big Dry Creek, including all tributaries, lakes, and reservoirs, from the source to the confluence with the South Platte River, except for the specific listing in Segment 2, 3, 4, and 5.									
Standley Lake.									
Physical and Biological									
CLASS 1									
CLASS 2									
CLASS 3									
CLASS 4									
CLASS 5									
Inorganic									
mg/l									
NH <sub>3</sub> (ac) = 0.62 FT/FPM/2									
Cl <sub>2</sub> = 0.003									
CN = .0005									
S = 0.002									
B = 0.75									
NO <sub>2</sub> = 1.0									
Cl <sub>4</sub> = 10.0									
SO <sub>4</sub> = 250.0									
Hg(ch) = .01 (Trec)									
As(ac) = 50.1 (Trec)									
Cd(ac/ch) = TVS									
Cr(III)(ac) = 50 (Trec)									
Cr(VI)(ac/ch) = TVS									
Cu(ac/ch) = TVS									
Fe(ch) = 300 (dis)									
Pb(ac/ch) = TVS									
Mn(ch) = 1,000 (Trec)									
Hg(ch) = .01 (Trec)									
Ni(ac/ch) = TVS									
Se(ac) = 10 (Trec)									
Zn(at/ch) = TVS									
See Attached To 1 and 2 for additional stan for segment 3.									
Great Western Reservoir									
Physical and Biological									
CLASS 1									
CLASS 2									
CLASS 3									
Inorganic									
mg/l									
NH <sub>3</sub> (ac) = 0.62 FT/FPM/2									
Cl <sub>2</sub> = 0.001									
CN = .0005									
S = 0.002									
B = 0.75									
NO <sub>2</sub> = 1.0									
Cl <sub>4</sub> = 10.0									
SO <sub>4</sub> = 250.0									
Hg(ch) = .01 (Trec)									
As(ac) = 50 (Trec)									
Cd(ac/ch) = TVS									
Cr(III)(ac) = 50 (Trec)									
Cr(VI)(ac/ch) = TVS									
Cu(ac/ch) = TVS									
Fe(ch) = 300 (dis)									
Pb(ac/ch) = TVS									
Mn(ch) = 50 (Trec)									
Hg(ch) = .01 (Trec)									
Ni(at/ch) = TVS									
Se(at) = 0 (Trec)									
Zn(at/ch) = TVS									
See Attached To 1 and 2 for additional stan for segment 4.									
Mainstem of North and South Walnut Creek, including all tributaries, lakes, and reservoirs, from their sources to Standley Lake and Great Western Reservoir, except for specific listings in Segment 5.									
Physical and Biological									
CLASS 1									
CLASS 2									
Inorganic									
mg/l									
NH <sub>3</sub> (ac) = 0.62 FT/FPM/2									
Cl <sub>2</sub> = 0.003									
CN = .0005									
S = 0.002									
B = 0.75									
NO <sub>2</sub> = 1.0									
Cl <sub>4</sub> = 10.0									
SO <sub>4</sub> = 250.0									
Hg(ch) = .01 (Trec)									
As(ac) = 50 (Trec)									
Cd(ac/ch) = TVS									
Cr(III)(ac) = 50 (Trec)									
Cr(VI)(ac/ch) = TVS									
Cu(ac/ch) = TVS									
Fe(ch) = 100 (dis)									
Pb(ac/ch) = 1,000(Trec)									
SO <sub>4</sub> = 250.0									
See Attached To 1 and 2 for additional stan for segment 5.									
State of Colo Water Std's									
Colo Dept. of Healthy Water Quality Control Commission of the State Colo February 15, 1991									

11 water quality standards have temporary modified until February 1, 1991.   
Water quality standards for segment 5.

See Attached To 1 and 2 for additional stan for segment 5.

Q = Rod 1

Table 1                  Page 12b  
 ADDITIONAL ORGANIC CHEMICAL STANDARDS(1)  
 (ug/L)

<u>Parameter</u>	<u>EPA Method</u>	<u>Chronic Standard</u>	<u>Gas Chromatography (GC) Detection Levels</u>
Acrylonitrile	625	0.058	15*
Aldrin	508	0.000074	0.1
Atrazine	608(2)/507(3)	3.0	1.0
Benzidine	625	0.00012	10*
Chlordane	508	0.00046	0.1
Chloroform	502.2	0.19	1.0
Chloroethyl Ether (BIS)	625	0.0000037	10*
DDT	508	0.000024	0.1
Dichlorobenzidine	625	0.01	10*
Dieldrin	508	0.000071	0.1
Dioxin (2,3,7,8TCDD)	613	0.000000013	0.01
Halomethanes	502.2	0.19	1.0
Heptachlor	508	0.00028	0.1
Hexachloroethane	525	1.9	1.0
Hexachlorobenzene	525	0.00072	1.0
Hexachlorobutadiene	525	0.45	1.0
Hexachlorocyclohexane,	505	0.0092	0.1
Alpha			
Hexachlorocyclohexane,	505	0.0163	0.1
Beta			
Hexachlorocyclonexane,	505	0.0186	0.1
Gamma (Lindane)			
Hexachlorocyclohexane,	505/608	0.0123	0.5
Technical			
Nitrosodibutylamine N	607	0.0064	5
Nitrosodiethylamine N	607	0.0008	5
Nitrosodimethylamine N	607	0.0014	5
Nitrosodiphenylamine N	607	4.9	10
Nitrosopyrrolidine N	625	0.016	10*
PCBs	508	0.000079	1.0
Polynuclear Aromatic Hydrocarbons	610	0.0028	1.0
Simazine	608(2)/507(3)	4.0	1.0
✓ Tetrachloroethane 1,1,2,2	502.2	0.17	1.0
Tetrachloroethane	502.2	0.8	1.0
✓ Trichloroethane 1,1,2	502.2	0.6	1.0
Trichlorophenol 2,4,6	502.2	1.2	1.0

(1) In the absence of specific, numeric standards for non-naturally occurring organics, the narrative standard "no toxics in toxic amounts" (Section 3.1.11(1)(d)) shall be interpreted as zero with enforcement based on the practical quantification levels (PQL's) for those compounds as defined by the Water Quality Control Division or the U.S. Environmental Protection Agency.

(2) Extraction Method

(3) Analytical Method

\* Gas Chromatography/Mass Spectrometry Method

Table 2  
SITE SPECIFIC RADIONUCLIDE STANDARDS\*  
(in Picocuries/Liter)

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The radionuclides listed below shall be maintained at the lowest practical level and in no case shall they be increased by any cause attributable to municipal, industrial, or agricultural practices to exceed the site specific numeric standards.

A. Ambient based site-specific standards:

	<u>Segment 2</u> <u>Standley Lake</u>	<u>Segment 3</u> <u>Great Western Reservoir</u>	<u>Segment 4</u> <u>Segment 5</u> <u>Woman Creek</u>	<u>Segment 4</u> <u>Segment 5</u> <u>Walnut Creek</u>
Gross Alpha	6	5	7	11
Gross Beta	9	12	5	19
Plutonium	.03	.03	.05	.05
Americium	.03	.03	.05	.05
Tritium	500	500	500	500
Uranium	3	4	5	10

B. Other site-specific standard applicable to segments 2,3,4 and 5.

Curium	244	60
Neptunium	237	30

\*Statewide standards also apply for radionuclides not listed above.

1616m/0160m/alm